

THE DIPTERA COLLECTED ON THE COCKERELL  
AND HUBBELL EXPEDITIONS TO HONDURASPart I: STRATIOMYIDAE, TABANIDAE,  
AND ACROCERATIDAE<sup>1</sup>

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During the winter of 1946-47, Professor and Mrs. T. D. A. Cockerell visited the Escuela Agricola Panamericana, Zamorano, Honduras, for the purpose of studying the insect fauna. Through their own efforts and those of students of the school, whom they interested in the project, they collected widely in the various orders. The present paper is based on a part of their Diptera, augmented by collections which T. H. Hubbell sent me for study. Dr. Hubbell visited various areas in Honduras in 1923, and in 1948 he revisited that country, on which occasion some time was spent at Zamorano.

## STRATIOMYIDAE

*Hoplitimyia mutabilis* (Fabricius), 1787, Mantissa Insectorum, vol. 2, p. 331 (*Stratiomys*). Zamorano, thicket, 2650 ft., July 29, 1948 (T. H. Hubbell), no. 162, 1 female; Dept. Choluteca, 3776 ft., El Chinchayote, Sa. de Colón, E. of San Francisco, July 31, 1948 (Hubbell).

*Hermetia illucens* (Linnaeus), 1758, Systema Naturae, 10th ed., p. 589 (*Musca*). Zamorano, November, 1946 (Vidales), Nov. 23, 1946 (G. Cisneros), and Aug. 6 and 22, 1948 (Hubbell), 5 females; Tela, Lancetilla, July 28, 1948 (Hubbell), 1 female.

*Hermetia flavipes* Wiedemann, Aussereuropäische Zweiflügelige Insekten, 1830, vol. 2, p. 26. Tela, Guaimas Dist., May 2, 1923 (Hubbell), no. 442, 1 male.

*Hermetia albitarsis* Fabricius, 1805, Systema Antliatorum, p. 63. Tela, Lancetilla Creek, March 11, 1923 (Hubbell), 1 female; Tela, Lancetilla, July 28, 1948 (Hubbell), 1 specimen, damaged.

*Chrysochlorina varia* (Curran), 1929, Amer. Mus. Novitates, no. 339, 1 p. 3 (*Chrysochlora*). Ridge between La Montañita and

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<sup>1</sup>I am grateful to Dr. Cornelius B. Philip for reviewing the Tabanidae section of this paper and for making some valuable suggestions on it.

C. Uyuca, about 5 kilometers southwest of Suyapa, Morazán Dept., 5200 to 5400 ft., Aug. 5, 1948 (Hubbell), no. 195, 1 female; Mt. Caculatepe, 4200 to 4500 ft., Aug. 6, 1948 (Hubbell), no. 203, 1 female.

*Sargus thoracicus* Macquart, 1834, Histoire Naturelle des Diptères, vol. 1, p. 261. Zamorano, 2600 ft., at light, July 3, 1948 (Hubbell), no. 19, 1 female.

*Sargus speciosus* Macquart, 1846, Diptères Exotiques, suppl. 1, p. 56. Zamorano, 2600 ft., at light, July 3, 1948 (Hubbell), no. 19, 1 female.

*Pedicella notata* (Wiedemann), 1830, Aussereuropäische Zweiflügelige Insekten, vol. 2, p. 34 (*Sargus*). Zamorano, Oct. 26, 1946 (Cisneros), 1 female.

*Merosargus cingulatus* Schiner, 1868, Novara Reise, Diptera, p. 62. Zamorano, October, 1946, (A. Carr), Nov. 18, 1946 (A. A. Arca), July 15, 1948 (Hubbell), no. 79, and Dec. 17, 1946, 4 females; Tela, Lancetilla, July 28, 1948 (Hubbell), 1 female; Tela, Dakota Farm, May 17, 1923 (Hubbell), no. 515, 1 specimen, damaged; Rio Sangrelaya, April 19, 1923 (Hubbell), no. 312, 1 female (?), damaged.

*Merosargus bequaerti* Curran, 1928, in Gowdey, Ent. Bull. Dept. Agric. Jamaica, 4, p. 31. Tela, Lancetilla, July 28, 1948 (Hubbell), 1 female.

*Microchrysa bicolor* (Wiedemann), 1830, Aussereuropäische Zweiflügelige Insekten, vol. 2, p. 41 (*Sargus*). Tela, May 31, 1923 (Hubbell), no. 694, 1 female.

*Ptecticus testaceus* (Fabricius), 1805, Systema Antilatorum, p. 257, 6 (*Sargus*). Zamorano, 2600 ft., on citrus, Aug. 16, 1948 (Hubbell), no. 225.

#### TABANIDAE

*Assipala melanoptera* (Hine), 1905, Ohio Nat., 6: 391 (*Chrysops*). Tela, April 6, 1923 (Hubbell), no. 187, 3 females; Tela, La Fragua Farm, March 8, 1923 (Hubbell), 2 females; Rio Paulaya, Barranco, April 17, 1923 (Hubbell), no. 303, 1 female.

*Esenbeckia mejiai* Fairchild, 1942, Ann. Ent. Soc. Amer. 35: 198. The male is previously undescribed. It differs from the female as follows.

*Male*. Eyes broadly contiguous, the ocellar triangle in consequence more pronounced and more distinctly elevated than in the female. Proboscis, to base of labella, about 1.25 times head height;

labellia about 0.12 length of haustellum, slightly inflated, elongated-oval, and rounded at apex. Antenna as in female, the terminal segment of flagellum somewhat narrower than in Fairchild's drawing, the length in proportion to the basal and subapical widths respectively 11:1 and 15:1. Palpus with basal segment (Fig. 1) strongly inflated, more hairy than in female, with particularly long hairs below; apical segment more slender than in female. Pile of thorax and abdomen somewhat more pronounced than in female.

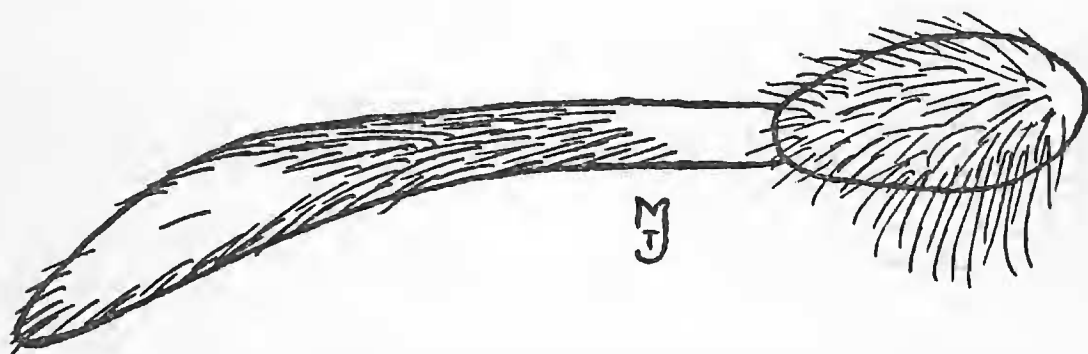


Fig. 1. *Esenbeckia mejiai* Fairchild, palpus of male.

Described from three males, Agua Amarilla, Honduras, Dec. 1, 1946 (Cisneros) and Dec. 15, 1946. Comparison made with one female, in good condition except for loss of the antennal flagellum, Agua Amarilla, Dec. 15, 1946.

*Chrysops scalarata* Bellardi, 1859, Saggio di Ditterologia Messicana, pt. 1, p. 72. Palajas, near Agua Azul, brushy slope, Lake Yojoa, Dept. Cortés, Aug. 14, 1948 (Hubbell), No. 217, 1 female (det. Philip).

*Dichelacera pulchra* Williston, 1900, Biologia Centrali-Americana, Vol. I, suppl., p. 263. Zamorano, October, 1946 (A. Carr), 2 females.

*Dichelacera fulminea* (Hine), 1920, Ohio Jour. Sci., 20:187 (*Tabanus*). Dept. Cortés, Palajas, near Agua Azul, east side Lake Yojoa, Aug. 14, 1948, (Hubbell), No. 212, 1 female.

*Lepiselaga crassipes* (Fabricius), 1805, Systema Antliatorum, p. 108 (*Haematopota*). Rio Claura, April 13, 1923 (Hubbell), No. 259, 1 female; Tela, May 9, 1923 (Hubbell), No. 499, and May 2, 1923 (Hubbell), No. 440, 2 females.

*Diachlorus ferrugatus* (Fabricius), 1805, Systema Antliatorum, p. 111 (*Chrysops*). Tela, May 31, 1923 (Hubbell) No. 696, 1 female.

*Hybomitra quadripunctata* var. *amabilis* (Walker), 1848, List of . . . Dipterous Insects in the . . . British Museum, pt. 1, p. 154 (*Tabanus*). Zamorano, March 30, 1946 (M. Morales), 1 female.

*Tabanus lineola* var. *carneus* Bellardi, 1859, Saggio di Ditterologia Messicana, pt. 1, p. 62. Zamorano, Oct. 12 (G. Vidales) and Oct. 13, 1946 (L. O. Williams), 2 females.

*Tabanus unistriatus* Hine, 1906, Ohio Naturalist, 7:28. Tela, Jilamo farm, May 28, 1923 (Hubbell), No. 654, 1 female (det. Philip).

*Stenotabanus longipennis* Kröber, 1930, Encyclopédie Ent., B, Diptera, V (1929), p. 127. Ruinas de Copán, 3500 ft., Dept. Copán, Aug. 4, 1948 (Hubbell), No. 191, 1 female (det. Philip).

*Amphichlorops* sp. near *venenatus* (Osten Sacken). Palajas, near Agua Azul, east side of Lake Yojoa, Aug. 14, 1948 (Hubbell), No. 212, 1 teneral male (det. Philip).

Hine (1925, Occ. Papers Mus. Zool. Univ. Michigan, no. 162, pp. 1-35), has recorded the following species on the basis of specimens obtained by the Hubbell expedition of 1923.

*Esenbeckia prasiniventris* (Macquart) (recorded as *Pangonius*)—Progreso.

*Scione aurulans* (Wiedemann)—Progreso; Tela.

*Chrysops scalarata* Bellardi (recorded as *C. lateralis* Wiedemann, misidentification; cf. Fairchild, 1946, Ann. Ent. Soc. Amer., 39: 565)—Tela.

*Chrysops latifasciatus* Ballard—Tela.

*Tabanus clarensis* Hine—Rio Claura.

*Tabanus unipunctatus* Bigot (recorded as *T. jilamensis* Hine; synonymy fide Philip, from Hine's manuscript notes).

*Tabanus unistriatus* Hine—Tela.

*Tabanus subruber* Bellardi—Tela.

*Tabanus bigoti* Bellardi—Tela.

*Leucotabanus leucaspis* (Wiedemann) (recorded as *Tabanus*)—Tela.

#### ACROCERATIDAE

##### *Ocnaea cisnerosi* James, new species

*Male*. Vertex black, shining laterally, dulled by greyish pollen between the two rather large yellow ocelli; front about 1.5 as

long as the diameter of an ocellus, brownish, shining, becoming yellowish next to base of antennae; short facial triangle and most of occiput yellowish, with concolorous pollen. Eyes black, with rather dense hairs which are mostly as long as the first antennal segment and which range from blackish above to yellow below. Pile of vertex and occiput concolorous. Antennae yellow on scape, somewhat darkened on pedicel, distinctly blackish on flagellum, especially on outward surface; ratio of segments 9:4:95, comparable head height 75; flagellum curved, about as broad on basal third or two-fifths as pedicel, thence tapering to a narrowed though blunt apex; antennae bare except for a prominent tuft of yellow hairs dorsally on the pedicel. Proboscis almost completely obscured by lower part of head; pile yellow.

Thorax mostly yellow; three broad brownish stripes on mesonotum, the lateral ones abbreviated anteriorly, the median one reaching the anterior margin but stopping short of the scutellum; most of sternopleura and lower part of pteropleura brownish, bare; thorax otherwise mostly clothed with yellowish pile. Legs yellow, the femora and tibiae brownish-yellow; pile yellow. Wings hyaline; vein  $R_{4+5}$  furcate, the branches forming practically a right angle at the fork and both reaching the wing margin; cell  $R_5$  broadly open.

Abdomen yellow; broad posterior margins of terga, especially laterally, brownish.

Length, 11-12 mm.

Holotype, male, Zamorano, Honduras, Dec. 9, 1946 (G. Cisneros); State College of Washington Type Coll. No. 169. Paratype, male, Zamorano, Honduras, Feb. 26, 1947 (Archie Carr).

In Aldrich's key (Proc. U. S. Nat. Mus., 81 (9) : 3, 1932) this species runs to *auripilosa* Johnson or, if the femora are considered as infuscated, to *trivittata* Aldrich. The lack of black abdominal markings will easily distinguish it from both those species. Other color characters, particularly the black thoracic stripes, will further distinguish *trivittata*, also described from Honduras. *O. micans* Erichson, in which the abdomen is wholly "fuscous" or "testaceus", is described as having a clavate flagellum. The two North American species which have been described subsequent to the publication of Aldrich's key, namely *O. smithi* Jenks and *O. sequoia* Sabrosky (cf. Sabrosky, Amer. Midl. Nat., 39:385-387, 1948), both have the thorax shining black and the abdomen marked with black or bluish-black.